

# Mimulus Memo



JUNE 2018

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## EVENTS

### JUNE

21 – Chapter Meeting, 6pm  
Program, 7pm

### JULY

12-14 – Horse Meadow Campout  
19 – NO MEETING

### AUGUST

17 – NO MEETING

## **Eben & Gladys McMillan: The Rancher-Conservationists Who Inspired Ernest Twisselmann**

by Nancy Nies

### **Part Two ~ Work with Condors**

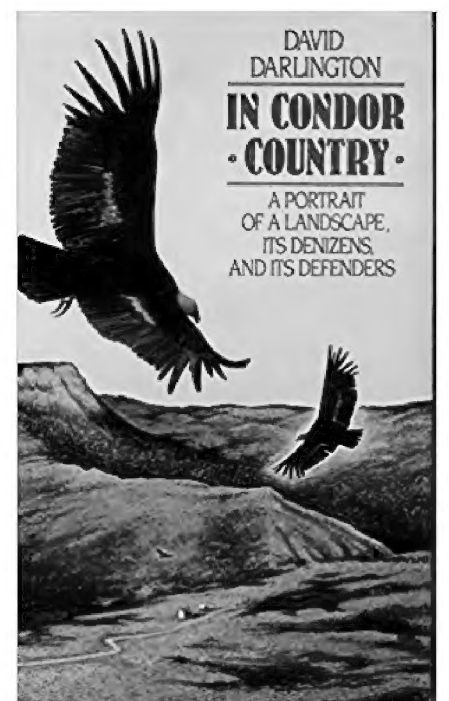
WHILE PREPARING THIS ARTICLE, I LEARNED OF DAVID Darlington's book, ***In Condor Country*** (Houghton-Mifflin, 1987). I checked out a library copy, and can report that it's a fascinating read. In his ***Washington Post*** review ("On the Trail of the Lonesome Bird," April 26, 1987), **Dennis Drabelle** describes it as a book about the condor's habitat, arid south-central California, as seen through the eyes of **Eben McMillan**, who had ranched there throughout his then nearly 80 years. The book opens with Eben's almost daily condor sightings of the 1930s, and **Gladys's** observation, one day in the 1960s, of



EBEN McMILLAN

**Eben McMillan** in an undated photo from an article (***Oxnard Press-Courier***, February 15, 1969) announcing that his film, "*The Shandon Hills*," would be part of an upcoming Audubon lecture series.

nine condors feeding on a cat carcass. The author had spent much time with the McMillans over a five-year period, and Drabelle calls the result "*an affectionate portrait of a man living in harmony with an environment most of his peers regard as begging to be tamed.*" Drabelle goes on to say that the McMillans seem to devote as much time to "*making their property hospitable to wildlife and writing about ecology as they do [to] farming.*"



Longtime environmental activists, Eben McMillan and his brother Ian were best known for their work with the California condors. Ian was to write a book on the subject, ***Man and the California Condor***. (Dutton, 1968). In "*Ranchers Put Environmental Ideals to Work*" (***Los Angeles Times***, March 27, 1988), **Miles Corwin** mentions that the McMillan brothers helped with condor research in the 1940s, and were asked by the **Audubon Society** in 1963 to conduct a condor survey. After 18 months they concluded that most condor fatalities were due either to the birds being shot or to their ingesting poisoned coyotes and rodents. The brothers made recommendations, which "*weren't taken seriously by the scientific community . . . because we weren't professional scientists,*" said Eben.

At a 1980 meeting on condor preservation, David Darlington saw Eben as *“the most reasoned, forceful, and far-sighted voice”* to argue against the captive breeding program. In Eben’s words, *“The condor is just a warning signal — if you’re driving your car and the oil light comes on, you know you better stop her right there and not go any farther until you know what’s wrong. Well, the condor is our shining red light.”* It was Eben’s conviction that we couldn’t just work to save the condor. *“We have to work on what’s causing the condor’s extinction,”* he said, *“and that’s the deterioration of the environment. If we don’t do anything about that, other species — including man — will be in line to suffer a similar fate.”*

### Work with Twisselmann

**In Condor Country** also features Ernest Twisselmann, who, like Eben McMillan, was born into a ranching family near Cholame, though ten years later than Eben. If you’re interested in more details on Twisselmann’s life, or curious about his somewhat complex relationship with the McMillans, I highly recommend the book.

As it happens, Eben McMillan played a major role in Ernest Twisselmann’s becoming a respected California botanist. In 1952, following an outbreak of nitrate poisoning in his family’s cattle, Twisselmann wanted to determine which plants contained high concentrations of nitrates. At Eben’s urging, he consulted botanist **John Thomas Howell** at the **California Academy of Sciences**. Howell told him to collect plants on his family’s land and record their locations. As Darlington points out, Twisselmann *“followed this advice beyond any and all expectations,”* analyzing no fewer than 1,875 species and varieties of vascular plants *“in one*

*of the most floristically diverse regions of one of the most floristically diverse states in the union.”*

Eben McMillan described Ernest Twisselmann to Darlington as being *“kind of a genius.”* Twisselmann, in recognizing those who contributed to his Flora, mentions Eben McMillan as being *“an accomplished naturalist, photographer, and rancher,”* and one of the many people who assisted him in collecting material. He also calls Eben *“a constant source of inspiration, information, and advice,”* comments on his extensive knowledge of the flora, fauna, and people of Kern County, and writes that his frequent company turned collecting trips into adventures.

In his *“Note on the Illustrations,”* Ernest Twisselmann acknowledges the McMillans’ involvement in his Flora project from the very beginning, and credits them with helping him develop many of the book’s concepts. He describes how Eben and Gladys carefully read the manuscript and planned the photos, so as to represent Kern County as comprehensively as possible. *“The author and illustrators hope the reader correlates the pictures and the narrative in order to have the best understanding of the plants and the places where they grow,”* says Twisselmann. He writes of his debt to Eben and Gladys McMillan, whose photography he calls *“an unusual demonstration of art in the service of science.”*

### A Long and Productive Partnership

Eben and Gladys shared certain traits that equipped them for a demanding life in a remote part of the world — they were both frugal and hard-working, for example, with a strong sense of responsibility — but in other ways they complemented each other. Eben was talkative and outspoken — *“opinionated but well-informed, stubborn but thoughtful,”* in the words of Dennis Drabelle. Gladys was quiet, described in her obituary as kind, gentle and empathetic, and in Darlington’s book as a *“tireless archivist”* who would have made an excellent librarian. Eben and Gladys were well-suited — thanks to the right mix of characteristics, both shared and complementary — for a long life together.

Throughout their 63-year marriage, Eben and Gladys McMillan were partners who collaborated in a number of successful endeavors — ranching, raising a family, making films, taking photographs, lecturing, traveling, making friends, hosting visitors, conducting research, caring for the environment, pioneering the conservation movement in central California, and — last, but not least for Kern CNPS members — inspiring and advising Ernest Twisselmann, and illustrating his ***Flora of Kern County, California*** with 68 dramatic black-and-white photographs capturing the remarkable diversity of our county’s landscape and flora. ❀

*Author’s note:* Many thanks to **Greg McMillan**, as well as to all others whose words found their way into this article.



**Gladys McMillan** in an undated photo accompanying her obituary (***San Luis Obispo County Tribune***, February 2, 2010)



**Above:** Ernest Twisselmann, 1971

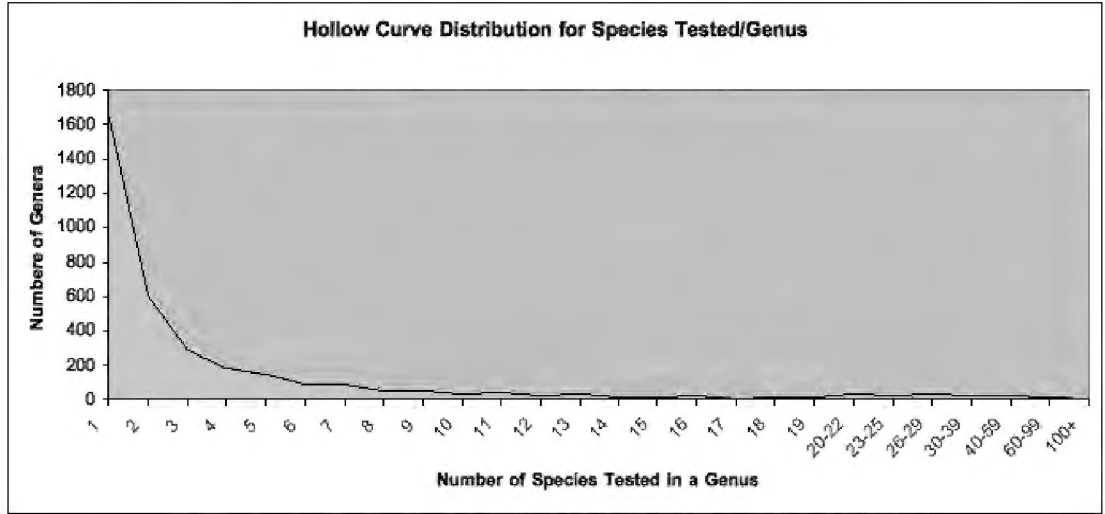


# President's Message: Biodiversity Distribution Patterns

by Rich Spjut

ETHNOBOTANISTS, NATURAL PRODUCT chemists, ecologists, plant taxonomists and others often overlook the impact that biodiversity distribution patterns have on their research. An example is an unexpected termination of a **National Cancer Institute (NCI)** search for new drugs from plants, in October 1981, after 20 years of screening more than 100,000 extracts from samples procured by the **USDA Agricultural Research Service (ARS)**.<sup>1</sup> Back then, the number of existing flowering plant species seemed unlimited; for example, one well-known pharmacognosist estimated 750,000 compared to conservative estimates of 225,000, to justify the search for plant cures.<sup>2</sup> Millions of dollars of funding of NCI botanical-pharmaceutical programs was suddenly terminated, however, primarily due to one ARS botanist who believed that a decline in discovery of anticancer drugs<sup>3</sup> had resulted from HeLa cell<sup>4</sup> contamination in one of the NCI bioassays, the KB cell culture. Plant extracts screened<sup>5</sup> in that bioassay had resulted in the discovery of taxol from the Pacific western yew,

There are currently 304,419 accepted species of flowering plants classified in 14,559 genera and 405 families.<sup>7</sup> The lowest biochemical-taxonomic diversity level is the genus, which contains anywhere from one to 3,270 species (*Astragalus*, Wikipedia). The number of species per genus is not a straight-line (linear) relationship, but one that has been called a “hollow curve,” **Fig. 1**. For example, at one end more than half of all genera in the world have one or two species;<sup>8</sup> at the other ~200 of the largest genera contain ¼ of the world species.<sup>6</sup>



The preceding graph was created from Table 5 in Spjut (1985), reproduced in part below. The graph shows an abrupt decline from one to three species tested per genus, starting with 1,672 genera represented by only one species tested, ending with more than 100 species tested in five genera, among a total of 15,589 species in 3,533 genera that had been collected for the NCI during 1960–1972<sup>9</sup>. The collection methodology was regarded as “random,” since any species, whether native, invasive, or cultivated, was a candidate for finding a new chemical to treat cancer, provided that the species, or its separate parts (root, stem, etc.), yielded 500 g dry weight for extraction, and that a field botanist could avoid collecting the same species or plant part more than once. The “random collection” was thus also taxonomic.

TABLE 5. PROBABLE AND ACTUAL PERCENTAGES OF ACTIVE GENERA ACCORDING TO NUMBER OF SPECIES TESTED IN A GENUS.

Number of species tested per genus (class)	Number of genera	% of active species	Probable % of active genera	Actual % of active genera
1	1,672	6.8	6.8	6.8
2	602	9.5	18.1	17.4
3	289	9.1	24.9	24.9
4	185	10.9	37.0	28.1
5	146	7.4	31.9	25.3
6	85	10.2	47.6	38.3
7	88	11.2	56.5	44.3
8	56	6.9	43.6	39.3
9	54	7.8	51.9	38.9
10	30	9.0	61.1	46.7
11	39	7.9	59.6	56.4

The preceding table shows the first 11 of 26 species categories (classes) of the number of species tested per genus followed by the number of genera, the frequency of antitumor activity<sup>10</sup> for each class of genera, the probable percentage of active genera, and the actual percentage found. The probable percentage active



*Taxus-brevifolia* — Branch with red aril that covers the seed except for the opening at the apex, Siskiyou Mountains, California

*Taxus brevifolia*, and other drugs from plants; taxol is currently used to treat breast cancer, lung cancer, Kaposi’s sarcoma, cervical cancer, and pancreatic cancer. However, I will show that a decline in new plant discoveries probably had more to do with collecting and bioassay screening strategies that neglected biodiversity distribution patterns of genera and species. These patterns were described and exemplified in my 1985 paper on limitations of a random screen.<sup>6</sup> Some of that data will be presented in this message.

was determined by the binomial expansion of  $(p + q)^n$  where  $n$  = number of species tested:  $p$  = frequency of activity in species: and  $q$  = frequency at which activity does not occur in species. The actual percentage was less than the probable in many classes, likely due to antitumor activity in genera with multiple species having the same or similar active compounds. A drop in the frequency of antitumor activity after seven species tested in genera without activity indicates that the odds of finding active compounds in those genera are less than in genera not previously tested.

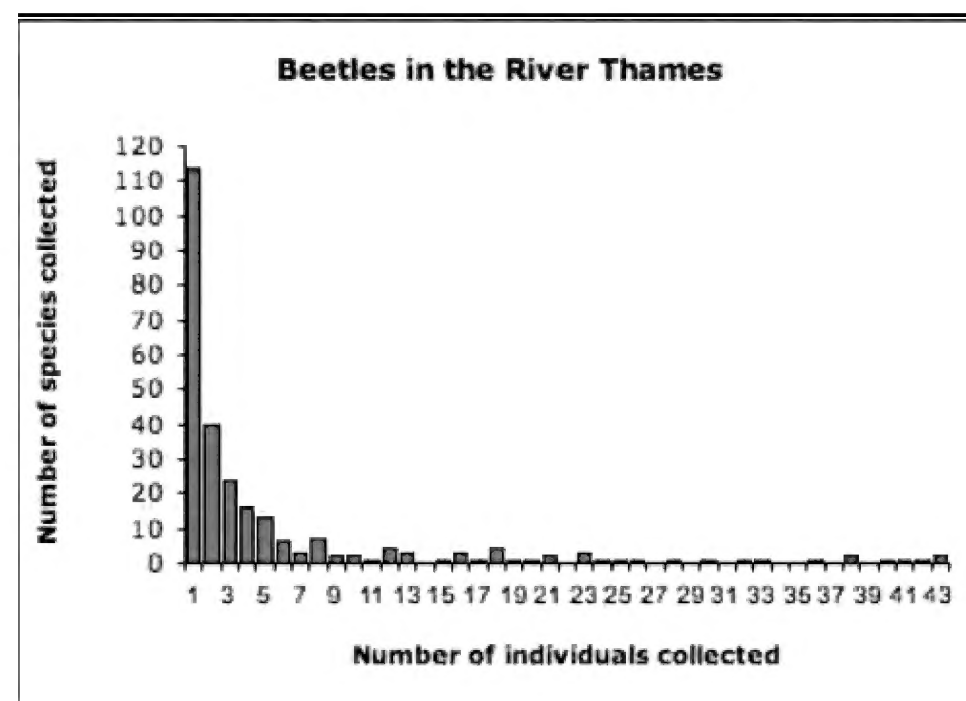
The **ARS Medicinal Plant Resources Lab** — where I was employed in Beltsville, MD — targeted field work by political boundaries, just as the CNPS defines chapters by counties. Plants, however, have their own boundaries as shown on the inside cover of the current **Jepson Manual**, divided into provinces, regions, subregions, and districts. This classification emphasizes ecological species distribution patterns, whereas I recognized 58 ecological floristic regions of the world for plant collections emphasizing the genus level.

### The NCI Plant Collections in 1980 According to 58 Plant Geographical Regions of the World



By 1980, The NCI had screened plants from many areas in the world, color coded here to show regions mostly heavily collected (red), moderately collected (yellow) and virtually uncollected (green). Although California lies in the red zone, where 51% of its flora was collected for the NCI, but not all collected in California, only 27%; the other 24% came from nearby states. This difference has to do with about half of the California species being relatively rare in California. From experience ~10–15% of the California Floristic Province is economical to sample before one needs to move on to another province or region.

Another example of the same biodiversity pattern is shown here for the abundance of beetle species found along the River Thames in England (Wikipedia).



One sees the same pattern as shown for number of species tested per genus, a universal biological pattern. However, the abundance of many native plant species is being displaced by invasive species. This reduces the number of native species available for biological screening of active agents.<sup>11</sup> ✿

### REFERENCES:

1. M. Suffness and J. Douros. 1982. Current status of the NCI plant and animal product program. *J. Nat. Prod.* 45: 1–14.
2. Farnsworth, N. R. and C. J. Kass. 1981. An approach utilizing information from traditional medicine to identify tumor-inhibiting plants. *J. Ethnopharmacol.* 3: 85–99.
3. J. Goodman, J. and V. Walsh. 2001. *The Story of Taxol: The Demise of the NCI-USDA Plant Screening Program*. Cambridge University Press, U.K., p.32
4. An immortal cell line used in scientific research derived from cervical cancer cells taken on February 8, 1951 (Wikipedia).
5. The term “screen” in the NCI program entailed three stages: (1) a crude extract prepared from a small portion of a sample weighing on average 500 g that was tested in one or more cancer bioassays, (2) if an extract significantly inhibited cancer growth, referred to as an active extract/ plant, a larger recollection was obtained to isolate and identify the active chemical, and (3) if the active chemical was novel, it required larger recollections to evaluate its potential use in cancer chemotherapy. Over the years, NCI employed various bioassays and extracts of a species were often retested, or the species may have been collected and extracted from multiple geographical locations.
6. R. W. Spjut. 1985. Limitation of a random screen: Search for new anticancer drugs in higher plants. *Economic Botany* 39(3): 266–288.
7. The Plant List. <http://www.theplantlist.org/1.1/browse/A/>
8. J. C. Willis, *Age and Area*. Columbia Univ. Press, 1922.
9. By 1974, the NCI had screened 20,525 species in 4,716 genera
10. Prior to 1969, the NCI employed many bioassays. Activity initially occurred in ~10% of the species tested, largely due to ubiquitous tannins, ~300 of ~2000 active species. By 1969 the primary bioassays were the KB cell culture and P-388 Leukemia (mouse). Active agents included alkaloids, diterpenes, sesquiterpenes, cardenolides, cucurbitacins, proteins and other miscellaneous compounds. About 1 in 1,000 species screened advanced to clinical trials.
11. R. W. Spjut. 2011. Decline in native annuals and increase in nonnative annuals in the California deserts. Pp. 348–358 in *Proceedings of the CNPS Conservation Conference: Strategies and Solutions*, 17–19 Jan 2009, eds. J. W. Willoughby, B. K. Orr, K.A. Schierenbeck



## Gardening with Natives: Gardens, Water, etc.

by Monica Tudor

THE GLORIOUS SPRING WEATHER WE'VE BEEN having has finally given way to warmer temperatures more familiar to Bakersfieldians. Summer is almost here! I've been decreasing the water given to my California native garden, but even though it's best for them, my tendency to overwater is still there. I realized I was overwatering my *Penstemon palmeri* when the leaves started to look odd. Some plants can handle summer water, others will sulk and might eventually die. At least my soil is very sandy, so it drains well and dries out quickly.

Even though fall planting is most often recommended, we do sell plants at the **Garden Fest** every April. I bought some of the leftovers and planted them, curious to see how they would do. So far, all is good. There is an obvious difference in size between plants put in the ground in fall vs. spring. Of course, that is to be expected. My main concern is how the spring-planted natives will withstand the 100 degree plus days to come. I've seen people put up shade over their plants to protect them; that might be an option for the first year.

The irrigation systems in the Campbells' garden and the Gradeks' garden prompted me to think about installing irrigation on the southern side of my garden. The plants against the north fence and west boundary of the garden are more established and on a sprinkler system, as are the plants in the shady spot, so they are easy. The island/berm in the middle has drip, and the rest is watered by hand. I'd like to be able to go on vacation and have live plants when I get back, so a timer should be in the plans, too. Another reason to give irrigation a go is because I'll be doing my front yard in natives this fall and want to make it easier to maintain.

My husband was impressed with the gardens on the garden tour and has given his OK to converting our front yard to native. He's printed out some pictures of gardens he has found on the Internet and we are discussing plant selection.

**He:** Let's put in four Palo Verde trees! **Me:** They will get too big, we can do one. **He:** We need to keep the red plum trees. **Me:** No, they send up suckers all over and it will be a mess digging them out all the time.

**He:** OK, but we gotta keep the pine tree. **Me:** Sure!

So we work it out. Honestly, though, doing my front yard intimidates me a little bit. Even though I have learned much about growing and maintaining a

California garden from all the folks who participate in the discussions at the monthly CNPS meetings, I'm not much of a designer. I want my front yard to look amazing and want other homeowners to see it and be inspired go native, too. After all, that's why we do this. 🌸



*Penstemon palmeri*: Fall-planted vs. spring-planted



*Penstemon spectabilis*: Fall-planted vs. spring-planted

Photos by Monica Tudor



CALIFORNIA  
NATIVE PLANT SOCIETY

CNPS is the leader for providing reliable information on California native plants and plant conservation. Comprehensive information about California's flora and vegetation communities is available throughout the state for conservation and educational purposes. CNPS's leadership influences personal ethics and actions, as well as public policy for native plant protection.

## Thank You to:

- ... **Steven Hartman**, CNPS Board President for an encouraging program on the **Urban Wildlife Refuge** in the Sepulveda Basin near Van Nuys, CA
- ... **Jorge Ochoa**, for an engaging presentation on the response and recovery of areas of Griffith Park to wildfire events.
- ... **Fletcher Linton**, botanist for Sequoia National Park, for his beautiful presentation on superblooms at *Anza-Borrego State Park*.
- ... **Monica Tudor and Dorie Giragosian** and many volunteers for, once again managing our plant sale and flower show at *BC's Annual Garden Fest* ☼

### Chapter Meetings

## upcoming TOPICS

**Thursday, June 21 - 7 pm**

Presenter: **Richard Spjut**,

Kern Chapter President

*Relict Plants in the Piute Mountains*

**JULY - NO MEETING**

**AUGUST - NO MEETING**

All chapter meetings are held the **3rd Thursday** of each month at the Kern County Supt. of Schools, Rm. 1A 1300 17th Street, Bakersfield, CA

#### Meeting times:

**6 pm** — Discussion groups on plant identification and native plant gardening

**7 pm** — Program presentation

### Conservation Corner:

by Fred Chynoweth

**T**HE NEW FARM BILL, H.R. 2, CUTS \$5 BILLION from working lands conservation programs. The legislation also contains forest provisions that undermine bedrock environmental laws and prioritize the logging industry over all other forest stakeholders. The conservation committee contacted the two congressmen representing Kern County, expressing our opposition. The bill did not get sufficient votes on the first go-round due to disagreement on the immigration bills.

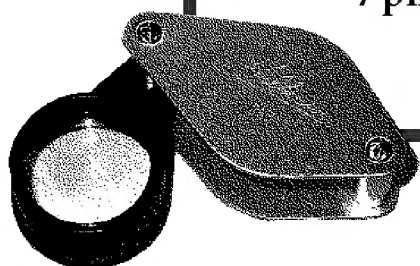


**The L.A. County Planning Commission** has rescheduled the hearing on the **Centennial Specific Plan** for **June 6 at 9:00 AM**. **Tejon Ranch Company** proposes to build nearly 20,000 houses in a remote area of L.A. County, requiring future residents to endure long commutes, which will result in exorbitant greenhouse gas emissions. Furthermore, Centennial sits less than 10 miles from the junction of the state's two largest fault systems, the San Andreas and the Garlock. The project site is also in an incredibly windy location and suffers from severe wildfire risk. The committee will most likely make a recommendation to the **County Board of Supervisors**. Subsequently, the Board of Supervisors will vote on whether or not to approve the project. **Nick Jensen** has invited interested CNPS members to participate in the hearing.



**The Western Mojave Plan (WEMO)** covers more than 3 million acres of **Bureau of Land Management** land in the Mojave Desert. In 2006, the BLM designated over 5,000 miles of routes for off-road vehicles (ORVs) in the approximately 3-million-acre WEMO Plan Area of the California desert. A federal court overturned that plan in 2009, finding numerous legal violations, and ordered BLM to make new route designations that comply with the law.

On **March 16, 2018**, BLM released a new draft plan that would designate a spaghetti network of 6,313 miles of ORV routes. Though an improvement over a 2015 draft plan, this plan does little to end decades of poorly managed ORV use, designating thousands of miles of routes that were created by illegal off-roading. We have signed onto a request by the **Wilderness Society** for an extension of the comment period. **Nick Jensen** is doing research and is preparing a response for CNPS, which we support. The comment period for WEMO closes on **June 14**. ☼





## 2018 Native Garden Tour

ON APRIL 28, 2018 KERN CNPS HELD TOURS OF THE NATIVE PLANT GARDENS OF THREE OF ITS Bakersfield member homes — **Monica Tudor, Dinah and David Campbell and Dale and Patty Gradek.** The following is an article about our tour by *Bakersfield Californian* reporter **Joseph Luiz** as it appeared in the April 28th edition of the *Bakersfield Californian*. (Reprinted here with permission)

[http://www.bakersfield.com/news/new-show-highlights-drought-tolerant-native-gardens/article\\_69a1fa4a-4b2a-11e8-b296-bf9f7d0506a1.html](http://www.bakersfield.com/news/new-show-highlights-drought-tolerant-native-gardens/article_69a1fa4a-4b2a-11e8-b296-bf9f7d0506a1.html)

## New show highlights drought-tolerant native gardens

### Gardening tips

Here are some tips from Monica Tudor for those who are interested in creating a garden. Some of these tips are specific to California native gardens.

**Know your general climate.** What United State Department of Agriculture climate zones are you in? Bakersfield is mostly USDA 8-9 and HOT.

**Know your soil.** Is it clay? Sand? Is it compacted? What's underneath it? Bakersfield soil is more alkali than acidic. Keep that in mind when selecting plants.

**Pay attention to shade and sun.** Study your site and notice which areas are sunny all day, sunny half a day, have high-filtered shade, deep shade, etc. For example, a north-facing wall will have more shade than a garden on a west- or southfacing wall. These different areas within your yard are called micro-climates.

**Be realistic about time investment.** Typically a new garden will require more tending than an established garden. An established garden will need less tending. Whether your garden is established or not, plan on walking through your garden once a week at least to see what's growing.

**Do your homework.** Look at native gardens, go to native plant nurseries, research the library or the internet for California native plants and note the plants you'd like in your garden. Websites such as [calscape.org](http://calscape.org) provide lots of information about what plants are native to what location. The website of Santa Margarita-based Las Pilitas nursery, [laspilitas.com](http://laspilitas.com), has hundreds of pages highlighting native plants and their care.

**Plan your garden carefully.** If you like to plan, measure and sketch your garden, include your irrigation set up, and mark where your plants will go. Keep in mind their ultimate size will be many times larger than what you're putting in the ground.

BY JOSEPH LUIZ

jluiz@bakersfield.com Apr 28, 2018

Homeowners with green thumbs were able to get a few ideas on Saturday about how to spruce up their gardens or start new ones.

The Kern chapter of the California Native Plant Society held its first Native Garden Show on Saturday. Participants got to tour three gardens, each at a different residence in Bakersfield. The drought-tolerant gardens all feature California native plants, such as certain types of sages, poppies and lilacs.

"This is a fabulous tour. I think it's really important for people to know how much color and variety they can put in a native yard," said participant Penny Young. "All of these people are really knowledgeable. It's a real treat to be here."

One of the gardens featured in the tour was created by Monica Tudor, who

started creating her 50-by-85-foot garden in 2009 and has been adding to it ever since. It currently includes more than 60 different kinds of plants, nearly all of which are California natives.

"We've been through lots of trial and error as we learned how to grow these things, but it's been a blast," she said. "I think it's starting to look really nice."

The garden uses no fertilizer or pesticides and requires little water, Tudor said. The garden includes walking paths, chairs and benches to sit on and a large palo verde tree, whose branches span a large portion of the garden.

"It's just a wonderful, peaceful place," she said. "You can sit and contemplate about things. You can't have a bad day out there."

While Tudor said working on the garden has taken many hours of effort, she has



HENRY A. BARRIOS/THE CALIFORNIAN

Monica Tudor, center, member of the Kern chapter of the California Native Plant Society, gives a tour of her garden at her home in Bakersfield, where she grows mostly native plants. A sonoran emerald palo verde tree covers a good portion of the garden, but the tree allows plenty of light through to nourish the plants. The tour was part of a three-home garden show by the society to inform those interested of how native plant gardens can thrive.

enjoyed her time working on it and is now getting to reap the benefits.

"It's just a lot of fun for me to go out there," she said. "It reduces stress for me, helps me relax. I'm really passionate about it; not like work to me."

Tudor said she believes some people have the impression that using native plants that require little water means having a garden that isn't as colorful or vibrant as other types of gardens. She believes that's a misconception.

"When people think of drought-tolerant gardens they often think of cactus or something like that, but that's not what this is," she said. "You can use a little bit of water and have a fabulous garden."

Tudor said she's enjoyed getting to show off her garden to visitors and was really excited about being featured in Saturday's show.

"I love to share my garden," she said. "I haven't had a single person that wasn't at least somewhat interested. Many people have said they had no idea a California na-

tive garden could look like this. It gives me great joy to pass on my passion to someone else and for them to be able to experience that joy themselves."

Elizabeth Oropeza came with her husband to the show on Saturday to learn more about the native plants, as she hopes to use them in a couple small gardens in her backyard at home.

"I've never dealt with California natives before, so I wanted to learn more about them," she said. "I wanted to know how to arrange them, what their behavior is."

Oropeza said she enjoyed seeing the gardens and said hearing from their creators gave her good information and advice to use in the future.

"It's fantastic," she said. "I really love the designs with the walkways. All the plants are really pretty. It's great being able to visualize how my own garden could look."

Tudor said inspiring homeowners to create their own native gardens is one of the primary goals of the event, which she hopes will become a tradition.

If more neighborhoods in Bakersfield had nice drought-tolerant gardens, it could change the whole image of our city," she said. "If we could put a premium on having a well-maintained native garden, it would be something so different and unique to Bakersfield."

The other two homes featured in Saturday's tour belong to Dale and Patty Gredeck and David and Dinah Campbell.

Joseph Luiz can be reached at 395-7368 or by email at [jluiz@bakersfield.com](mailto:jluiz@bakersfield.com). You can also follow him on Twitter @JLuiz\_TBC.

## Meeting the Public - April 21st:

### Plant Sale & Wildflower Display at Bakersfield College Annual Garden Fest



Clockwise from upper left: happy purchasers of native plant posters; **Dale Gradek** explaining photos depicting the conversion of his front yard a native plant garden; **Monica Tudor** and **Dorie Giragosian** setting up for the event; **Denis Kearns** and his son, **Noah**, arranging and labeling the wildflower display.

Photos by Elyse Goin



## Stinknet

### A Threat and a Response

by Brooke Stutz

IN THE SPRING OF MARCH 2017 *ONCOSIPHON piluliferum* — also known as **stinknet** — was discovered between Taft and Maricopa. Stinknet is a South African plant, cultivated in the landscaping of Arizona homes, which has been invading Southern California.



Photo by Brooke Stutz

Stinknet (*Oncosiphon piluliferum*)

According to the Consortium of California Herbaria, the plant arrived in Southern California, at the Box Springs Mountain Park in Riverside in May 1981, and by 1997 the plant had reached **San Diego's Wild Animal Park**. Since then, stinknet has spread to south of the Transverse Ranges in several counties — Riverside, San Diego, Los Angeles, San Bernardino, Orange, and Imperial. Since no observations of stinknet had been previously recorded north of the Transverse Ranges, an observation was submitted to **CalFlora**.

A **U.S. Fish and Wildlife** biologist contacted me with concerns about a worrisome possible “*leap frog*” event — stinknet's coming over the mountain range into Kern County. Not too far away — less than a 10-mile hop over the Temblors — is a region precious to California plant enthusiasts and botanists, the **Carrizo Plains National Monument**.

*Oncosiphon piluliferum* can form a monoculture, taking over areas and having the potential to replace invasive *Bromus* species. Basically, this plant could make its way into the Carrizo, and instead of seeing the biodiversity of native flora we now see (i.e. *Layia*, *Lasthenia*, *Monolopia*, *Caulanthus*, etc.) we could be looking into a field of stinknet. (Stinknet has been given this common name because of its malodorous fragrance.)

With biologists stressing the importance of eradicating this species before it reaches the Carrizo or before it becomes unmanageable in the valley, I coordinated a **Stinknet Removal Working Group** with the help of the property owners (**Chevron, Aera, and Kern Valley Water**) in the general vicinity of the occurrence who allowed us access to the property. At **The Wildlife Society's San Joaquin Chapter's** annual symposium I gave a 5-minute presentation about stinknet and used that opportunity to recruit volunteers for the removal event. On **April 14th**, 10 people from **Kern CNPS and TWS' San Joaquin Chapter** met for the event. Our very own **Clyde Golden** was there, and found the tiniest clump of eight stinknet plants. Next year we hope to be able to follow up on the stinknet population and hopefully have eradicated this species. ✿

## CHANGE OF DATE!

### Annual Campout

### Horse Meadow Campground

July 12-14, 2018

by Lucy Clark

FOR NUMEROUS REASONS INCLUDING VERY cold night-time temperatures, the dates of our annual Horse Meadow Campout have been moved to **Thursday, July 12 through Saturday, July 14**. Come up for one or both nights or just come for a flower hunt on Sherman Pass Road and/or over to Big Meadow on **Saturday**.

Email **Lucy Clark** at [lucyg391@gmail.com](mailto:lucyg391@gmail.com), to be alerted to any change of plans or where/when to meet if you are only coming on Saturday. ✿

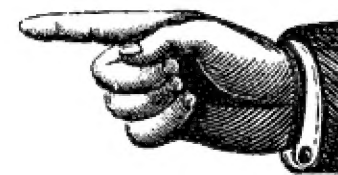


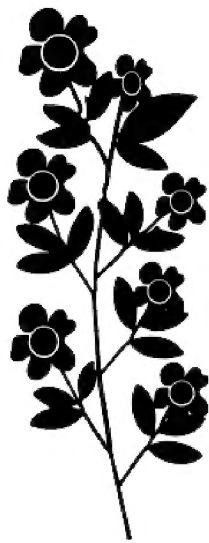
Photo by Dinah Campbell

Horse Meadow Campground, 2015

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## Mimulus Memo



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DATES & TOPICS

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The Kern Chapter of the



CALIFORNIA  
NATIVE PLANT SOCIETY

California Native Plant Society meets  
the third Thursday of each month at:  
Kern County Supt. of Schools  
City Centre, Room 1A or 1B  
1300 17th Street, Bakersfield, CA 93301  
Chapter website: [kern.cnps.org](http://kern.cnps.org)

*The California Native Plant Society is a non-profit organization dedicated to the conservation of California native plants and their natural habitats, and to increasing the understanding, appreciation, and horticultural use of native plants. CNPS has 31 chapters throughout the state and membership is open to all persons — professional and amateur — with an interest in California’s native plants. Members have diverse interests including natural history, botany, ecology, conservation, photography, drawing, hiking and gardening. As a Kern County resident, your membership includes Fremontia, a quarterly journal with articles on all aspects of native plants; the Bulletin, a statewide report of activities and schedules; and The Mimulus Memo, the newsletter of the Kern Chapter.*

Join CNPS or renew your membership online at [www.cnps.org](http://www.cnps.org).

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